

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of performing a real-time operation including a combination of a plurality of tasks, the method comprising:

inputting structural description information and a plurality of programs describing procedures corresponding to the tasks, the structural description information indicating a relationship in input/output between the programs and including cost information concerning a time required for executing each of the programs, and coupling attribute information indicative of a coupling attribute between the programs;

determining an execution start timing and execution term of each of a plurality of threads for execution of the programs based on the structural description information; [[and]]

performing a scheduling operation of assigning the threads to one or more processors of a plurality of processors according to a result of the determining;

selecting a tightly coupled thread group from among the plurality of threads based on the coupling attribute information, the tightly coupled thread group including a set of tightly coupled threads running in cooperation with each other;

reserving execution terms of the tightly coupled threads in several processors of the plurality of the processors, the reserved execution terms having same execution start timing and the same term, the several processors being equal in number to the tightly coupled threads; and

simultaneously executing the tightly coupled threads in reserved execution terms by the several processors.

Claim 2 (Canceled).

Claim 3 (Currently Amended): The method according to claim [[2]]1, wherein each of the several processors includes a local memory, and the method further comprises mapping the local memory of one of the several processors, which executes one of the tightly coupled threads, in part of an effective address space of another of the tightly coupled threads executed by another of the several processors.

Claim 4 (Currently Amended): An information processing system which performs a real-time operation including a combination of a plurality of tasks, the system comprising:

a plurality of processors;

means for storing structural description information and a plurality of programs describing procedures corresponding to the tasks, the structural description information indicating a relationship in input/output between the programs and including cost information concerning time required for executing each of the programs, and coupling attribute information indicative of a coupling attribute between the programs;

means for determining an execution start timing and execution term of each of a plurality of threads for execution of the programs based on the structural description information; [[and]]

means for performing a scheduling operation of assigning the threads to at least one of the processors of a plurality of processors according to a result of the determining;

means for selecting a tightly coupled thread group from among the plurality of threads based on the coupling attribute information, the tightly coupled thread group including a set of tightly coupled threads running in cooperation with each other, and

means for determining several processors of the processors, to which the tightly coupled threads are to be assigned, to simultaneously execute the tightly coupled threads by

the several processors, the several processors being equal in number to the tightly coupled threads; and

means for simultaneously executing the tightly coupled threads in reserved execution terms by the several processors.

Claim 5 (Canceled).

Claim 6 (Currently Amended): The information processing system according to claim [[5,]]4 wherein each of said plurality of processors includes a local memory, and the system further comprises means for mapping the local memory of one of the several processors, which executes one of the tightly coupled threads, in part of an effective address space of another of the tightly coupled threads executed by another of the several processors.

Claim 7 (Currently Amended): A ~~program which is stored in a~~ computer readable medium storing program instructions which when executed by media and causes a computer including a plurality of processors ~~to perform~~ results in performance of a real-time operation including a combination of a plurality of tasks, ~~the program~~ said real-time operation including steps comprising:

~~causing the computer to input~~ inputting structural description information and a plurality of programs describing procedures corresponding to the tasks, the structural description information indicating a relationship in input/output between the programs and including cost information concerning a time required for executing each of the programs;

~~causing the computer to determine~~ determining an execution start timing and execution term of each of a plurality of threads for execution of the programs based on the structural description information; [[and]]

~~causing the computer to perform~~ performing a scheduling operation of assigning the threads to one or more processors of a plurality of processors according to a result of the determining;

selecting a tightly coupled thread group from among the plurality of threads based on the coupling attribute information, the tightly coupled thread group including a set of tightly coupled threads running in cooperation with each other; and

reserving execution terms of the tightly coupled threads in several processors of the plurality of the processors, the reserved execution terms having same execution start timing and the same term, the several processors being equal in number to the tightly coupled thread.

Claim 8 (Canceled).

Claim 9 (Currently Amended): The ~~program according~~ computer readable medium according to claim [[8]] ]], wherein each of the several processors includes a local memory, and the ~~program further comprises~~ real-time operation results in performance of further steps comprising:

~~causing the computer to map~~ mapping the local memory of one of the several processors, which executes one of the tightly coupled threads, in part of an effective address space of another of the tightly coupled threads executed by another of the several processors.

Claim 10 (Currently Amended): An information processing system which performs a real-time operation including a combination of a plurality of tasks, the system comprising:

a plurality of processors;

a storing unit configured to store structural description information and a plurality of programs describing procedures corresponding to the tasks, the structural description

information indicating a relationship in input/output between the programs and including cost information concerning time required for executing each of the programs, and coupling attribute information indicative of a coupling attribute between the programs; and

a scheduling unit configured to perform a scheduling operation of assigning a plurality of threads for execution of the programs to at least one of the processors by determining an execution start timing and execution term of each of the threads based on the structural description information;

a selector to select a tightly coupled thread group from among the plurality of threads based on the coupling attribute information, the tightly coupled thread group including a set of tightly coupled threads running in cooperation with each other;

a determining unit configured to determine several processors of the processors, to which the tightly coupled threads are to be assigned, to simultaneously execute the tightly coupled threads by the several processors, the several processors being equal in number to the tightly coupled threads; and

the several processors configured to simultaneously execute the tightly coupled threads in reserved execution terms.

Claim 11 (Canceled).

Claim 12 (Currently Amended): The information processing system according to claim ~~[[11]]~~10, wherein each of said plurality of processors includes a local memory, and the system further comprises a mapping unit configured to map the local memory of one of the several processors, which executes one of the tightly coupled threads, in part of an effective address space of another of the tightly coupled threads executed by another of the several processors.